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EXAMINER

GUBIOTTI, MATTHEW P

ART UNIT

PAPER NUMBER

2124

DATE MAILED: 05/20/2003

7

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/575,342

Applicant(s)

RAPAKKO ET AL.

Examiner

Matthew Gubiotti

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 3/11/03.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-14 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ 6) ☐ Other: _____

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DETAILED ACTION

1. This action is in response to the amendment filed March 11th, 2003.
2. Per request of the applicant:
The specification has been amended as indicated;
Claims 1-14 have been amended;
Claims 1-14 are pending in the application.
3. The Examiner acknowledges receipt of the correct formatting changes and withdraws his objection to the specification.
4. In view of the amendments filed March 11th, 2003, the prior rejection of claims 7 and 12 under 35 U.S.C. § 112 is withdrawn.

Claim Objections

5. Claims 1-14 are objected to because of the following informalities: The claims as presented in the amendment do not contain a indication of status (e.g "Once Amended", "New") (See p.2-7). Appropriate correction is required.

Claim Rejections - 35 USC § 112

6. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

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7. Claims 7-13 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 7 recites the limitation "the expansion card" in Line 3. There is insufficient antecedent basis for this limitation in the claim. The claim will be treated below by the examiner as reading "an expansion card".

Thus, claims 8-13 are also rejected for being dependent on a rejected base claim.

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 1-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Settu (US Pat. No. 6,374,353) as applied to further in view of Garney (US Pat. No. 5,319,751).

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Claim 1

Settu shows a method for loading user interface software from a boot device (col.1, li.53) comprising a basic module (See mini OS at col.1, li.51-55) and a user interface module (See OS col.1, li.55-57) wherein in the first phase includes loading and start-up of the basic module (col.3, li. 48-60) and the second phase includes loading and executing the user interface module (col.3 li.60 to col.4 li. 14). However, Settu does not expressly disclose conducting the second phase of software loading when an expansion card is coupled to an electronic device. Although Settu does teach a method for event-driven loading of a second software module to reduce the time required to boot an information processing apparatus (col.1, li.45-65).

However, Garney teaches the insertion of an expansion card as a event triggering the dynamic reconfiguration of system resources in an information processing system (col.3, li.19-20). Garney teaches this art as a means of efficiently allocating system resources in loading a software program, specifically a device driver (col.4, li.32-8). At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to trigger the loading of a second software module as taught by Settu with the card insertion event of Garney. The would have been obvious because a specific triggering event

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resulting in the subsequent allocation of system resources, such as the card insertion taught by Garney, would reduce the initial boot time of a computing device as taught by Settu (col.1, li.31-40).

Claim 2

Settu further teaches a method wherein the first module controls the execution of the second phase (col. 1, li.62-64).

Claim 3

Settu further teaches a method wherein a device driver interfaces with an application program interface which communicates with said basic module wherein the loading and startup of the user interface module is initiated from the basic module (col. 3, li.61 to col. 4, li.7).

Claim 4

Settu does not expressly disclose wherein coupling an expansion card to a electronic device an interrupt signal is produced and information on the coupling is transmitted to a device driver. Garney additionally teaches a method wherein coupling an expansion card to a electronic device an interrupt signal is produced and information on the coupling is transmitted to a device driver (col.8, li.21-25). This is shown as a means of initializing memory resource allocation by the system (col.8, li.29-41).

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At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to modify the loading of a user interface module as taught by Settu with the interrupt signal generation taught by Garney. It would have been obvious because an interrupt signal produced by a card insertion, as taught by Garney above, would reduce the initial boot time of a computing device as taught by Settu (col.1, li.45-50) by notifying a system of the appropriate time to allocate system resource for a related application.

Claim 5

Settu does not expressly disclose wherein the decoupling of an expansion card halts processing of a user interface module without interrupting the basic module. Garney teaches a method wherein the decoupling of the expansion card halts processing of a secondary software module without interrupting the basic module (col.4, li.26-31). This is shown as a means of effectively allocating system memory resources(col.8, li.29-41).

At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to modify the dual step loading of a user interface module as taught by Settu with the method of halting processing of the secondary software module without interrupting the basic module taught by Garney. By not interrupting the basic module, Garney allows for an

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efficient means of restarting a secondary module from a basic module on reinsertion of a expansion card (col.14, li.25-42). It would have been obvious to modify Settu with the method of Garney, because it would provide an efficient means of configuring system resources to reduce the initial boot time of a computing application as suggested by Settu (col.1, li.34-40) and taught by Garney (col.4, li.22-3).

Claim 6

Settu does not expressly disclose a method wherein memory is allocated for a user interface module when said module is loaded and said memory is deallocated when an expansion card is removed from an electronic device. Garney teaches a method wherein memory is allocated for a user interface module when said module is loaded (col.4, li.4-7) and said memory is deallocated when an expansion card is removed from an electronic device (col.4, li.25-31). This is shown as a means of efficient memory resource allocation by a computer system (col.8, li.29-41).

At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to modify the method of Settu as described above with the method of dynamic memory allocation taught by Garney. It would have been obvious to modify Settu in this way, because Garney provides a efficient

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means of configuring system memory resources to reduce the burden on a computing system at boot time as taught by Settu (col.10, li.36-9).

Claims 7-9

These are the apparatus claim corresponding to the method of claims 1-3, respectively. The claims are rejected under the same arguments as cited above, with Column 2, Line 1 referencing the apparatus (information process apparatus).

Claim 10-11

These claims represent an apparatus performing a method corresponding to the method of claim 3. The claim is rejected under the same arguments as cited above, with Column 2, Lines 1, and 10-11 referencing the apparatus (an information process apparatus with a OS loading and initialization processing module).

Claim 12

Garney further teaches wherein the expansion card comprises a transmitter/receiver unit and power amplifier ("device driver"; col.1, li.60 to col.2, li.4). It is well-known to one of ordinary skill in the art that a power amplifier is commonly used in the output stage of a signal producing device to isolate output impedance. Additionally, it is well-known in the art

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that a driver acts as transmitter/receiver unit to control components of a specific computer resource.

Claim 13

Settu further teaches an apparatus for performing the method of claim 1 wherein the electronic device is a data processor (col.2, li.1).

Claim 14

Settu further teaches an storing means for performing the method of claim 1 (col.2, li.2).

Response to Arguments

10. Applicant's arguments filed March 11th, 2003 have been fully considered but they are not persuasive.

11. Applicant has asserted, in substance, the following:

A. That the prior art does not suggest or envisage the features in accordance with the present invention.

i) In response to applicant's argument that Settsu fails to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., "loading could be stopped", Applicant's Remarks, p.8, li.19) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification,

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limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993). As the "loading could be stopped" limitation is not present in the claim language, it does not limit reading the combination of Settsu and Garney on the claim language, as stated above.

Furthermore, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986). In this case, the Settsu reference (teaching the multiphase loading of a software application) is combined with Garney (teaching the coupling of an expansion card as a means of dynamically allocating system resources in loading a software program). The Applicant's assertion that a) Settsu does not teach the coupling of an expansion card and b) Garney does not teach the two phase loading of user interface software are rendered moot by the obvious combination of the two references as previously applied in the December office action and restated above. The motivation for combining the two references is demonstrated in the rejections above, and supported further below.

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ii) Applicant also asserted Settsu does not teach a user interface module. Examiner respectfully disagrees. As restated in the above rejection of Claim 1, Settsu teaches the multiphase loading of an operating system. An operating system functions to allow a user to control the allocation and usage of hardware resources (Microsoft® Computer Dictionary, Fourth Edition, Microsoft Press, 1999), as is commonly known in the art. To enable the allocation and usage of hardware resources by a user, an operating system employs a user interface module functional to allow a user to interact with system components.

iii) Applicant further asserts Garney teaches the use of "feature cards" and not the claimed "expansion cards" to enable the dynamic configuration of system resources in loading a software program. Aside from the minor difference in terminology, the Applicant provides no evidence to distinguish the two types of cards. To the contrary, the definition provided in the specification defines expansion cards as "memory cards, modems, and different input/output cards" capable of interfacing with a CMMCIA interface (p.1, li.17-21). This is indistinguishable from the definition of a feature card provided in Garney (See col.1, li.27-52).

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B. A Prima Facie case of obviousness has not been established
(See Applicant's remarks, p.10, ¶2).

i) Specifically, the Applicant have asserted that the combination of the Settsu and Garney references is non-obvious. In response to applicant's argument that there is no suggestion to combine the references, the Examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992).

In this case, the motivation previously provided, and not disputed by the Applicant here, is that one of ordinary skill in the art would be motivated to use "a specific triggering event resulting in the subsequent allocation of system resources [to] reduce the initial boot time of a computing device". The motivation is obvious in light of Settsu teachings comprising "a method for event-driven loading of a second software module to reduce the time

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required to boot an information processing apparatus" in view of the expansion card insertion event taught by Garney with the motivation of "efficiently allocating system resources in loading a software program".

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Conclusion

12. Applicant's arguments were not persuasive so Examiner maintains the grounds for rejection. Accordingly, **THIS ACTION IS MADE FINAL**. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Matthew Gubiotti whose telephone number is (703) 305-8285. The examiner can normally be reached on M-F, 8-4PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kakali Chaki can be reached on (703) 305-9662. The fax phone numbers for the

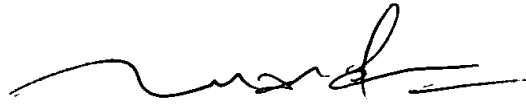
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organization where this application or proceeding is assigned are (703) 746-7239 for regular communications and (703) 746-7238 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3900.

MPG

May 16, 2003



TUAN Q. DAM
PRIMARY EXAMINER